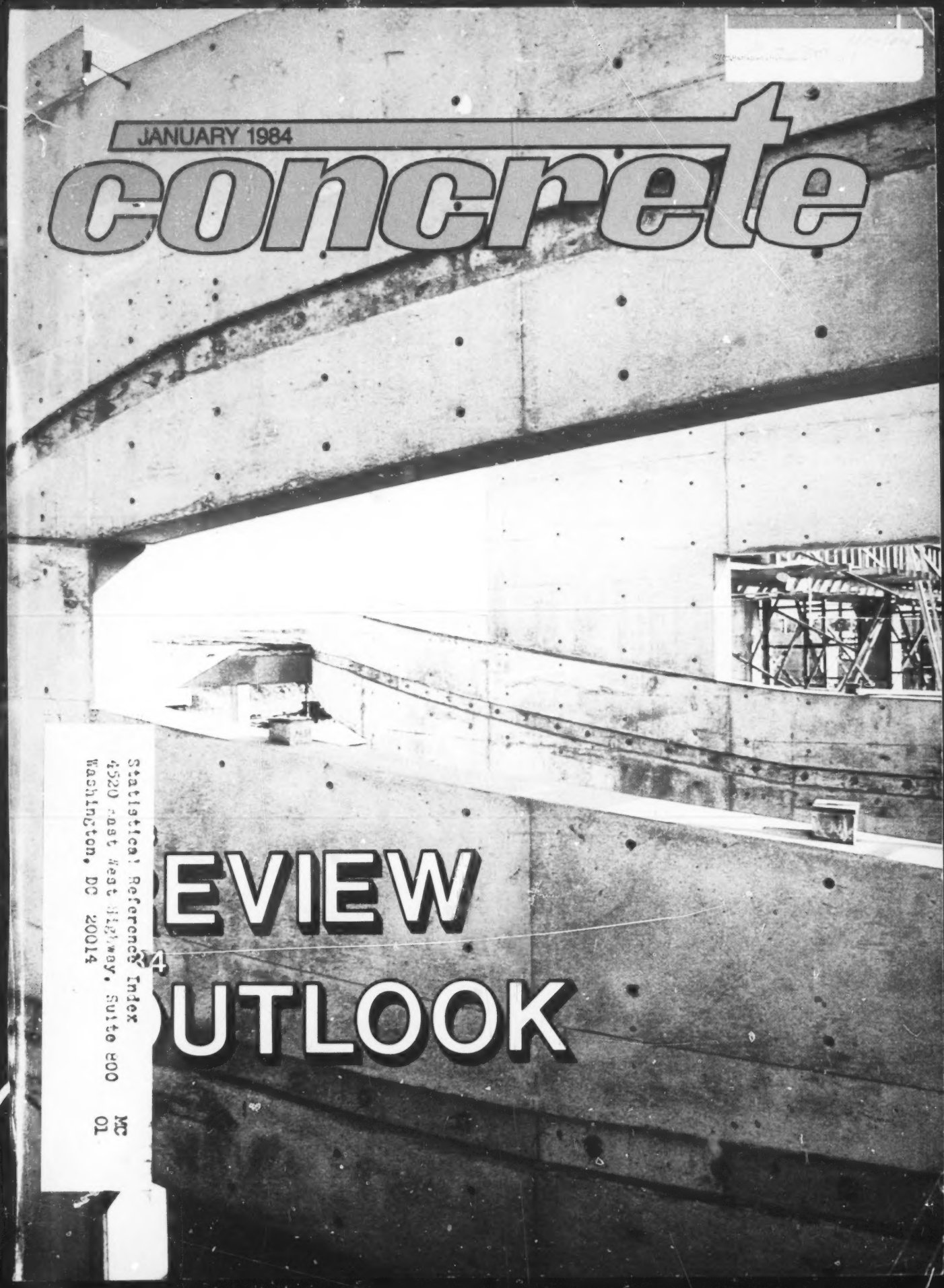

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Hope of seeing more formwork go up—as federal, state, and private construction dollars reach our industries—permeates the 1984 forecasts of association and industry leaders. See Outlook & Review section. (Photo courtesy of Martin Marietta Corp.)

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ABP BPA

CONCRETE IS INDEXED IN THE ENGINEERING INDEX

The concrete industries—

By Sandy Herod

A decline, however modest, in interest rates was indicated by large numbers of the respondents to *Concrete's* annual year-end survey of the concrete industries as the most potentially beneficial factor for improvement in their businesses. At the least, stability of the current interest levels would be helpful, they indicated, and a return to higher levels could be devastating.

Questionnaires returned by hundreds of ready-mix, concrete masonry, precast and prestressed concrete and pipe producers sharply portrayed the impact of lower interest rates through much of last year. Although, as reported a year ago, a substantial number of replies to our 1982 year-end survey were optimistic about 1983's prospects, the degree of improvement expected was not high.

Our latest canvass indicates that there was impressive improvement last year among all but one of the major industry categories. Average nationwide gains in reported production ranged from 10% to 22% (ready-mix and pipe, respectively). Returns from concrete masonry producers and precasters showed increases of 18% and 11%. Only the output of prestressed concrete failed to record an increase, and was apparently down just a couple of percentage points.

Prospects for the coming year are considered even brighter by the majority of respondents to each industry category of our survey. Some 56% of the ready-mix returns look for an average 10% increase in business. From 60-66% of the responses from each of the other four groups look for an even higher rate of production, the lowest average rate of gain expected being 11%.

Along with the queries concerning production volumes recorded during the past year, and the potential for the coming 12 months, our questionnaires have been developed to establish trends in primary cost centers. The information submitted by the producers was tabulated by region, and then assembled to present an industry-wide picture in the following staff reports on each industry group.

The continued cooperation of our producer readers in responding to our annual canvass is greatly appreciated. We are also indebted to the staff leaders of the several national industry associations who have provided us with commentaries on conditions in the industries they serve. ●

tations in 1983, reached an estimated level of $7.525 billion. A brighter look for housing construction has caused some sewer and water projects to move from the drawing board to the initiation of actual work projects. Although remaining at a fairly high level, sewer and water construction projects will decline a modest 2% in 1984 with a volume of $7.4 billion.

Other public works, the smallest segment of the nonbuilding construction sector, with a volume of $6.75 billion in 1983 was about 7% higher than the 1982 total. This total, it appears, will ease downward about 4% in 1984 to $6.5 billion.

Utilities

With the growth in housing starts and construction in general comes a need for more telephones and electric power. To accommodate these increases, existing utilities have to be built. Due to the increased demand, construction in this segment appears destined to have a substantial growth of 16% in 1984, climbing from $9.5 billion in 1983 to $11 billion the following year.

To meet 1984's increase in construction demand, there will have to be a comparable increase in the production of sand, gravel, crushed stone, and cement—all basic materials in making concrete. Capacities of some of the existing plants will have to be increased and some new plants will have to be built to meet the growing need for these materials. This, of course, will strongly stimulate the purchase of new equipment. This is borne out by the Concrete Industry Manufacturer Association survey released in November 1983. Most of the U.S. construction equipment manufacturers expect the demand for their equipment will be from 20% to 31% higher than it was in 1983. This is very encouraging news and indicates that the construction industry and those associated with it are well on the way to recovery.

Views of national association leaders:

CEMENT: anticipate steady growth

William J. Young
President
Portland Cement Association

An increase of nearly 10%—that is the encouraging news concerning 1983 U.S. portland cement shipments vs. shipments of 1982. According to Bureau of Mines data, 1983 shipments are expected to total 69 million tons; 1982's total was 63.1 million tons. PCA market and economic forecasters expect another 10% increase in 1984 when shipments are projected to total 76 million tons of portland cement; some 3 million tons is the expected total for masonry cement.

After declining for 4 consecutive years, construction turned upward in 1983 because of the surge in homebuilding. Indeed, the surge in homebuilding probably was the single most significant factor in the nation's 1983 economic growth.

At this writing, total new construction in 1983 is forecast to increase slightly more than $9 billion (in constant 1977 dollars); increased housing will more than offset continued decreases in most other 1983 areas of construction (a decline in the first half of the year) and flat, overall public construction (although highway construction increased, sewer and water facilities exhibited a sharp decline). Only light commercial building is expected to show gains before 1984.

The course of 1983

Mild weather was a critical factor in the cement recovery that began in January. Compared to January 1982, shipments rose 27% for portland cement and 59% for masonry cement. Then, wet and cool weather in March, April, and May offset potential gains from the strong economic recovery. The cement recovery began again in June and gained strength through the rest of the year. The pace, however, was slower than expected particularly when compared to the surge in housing starts.

We expect increased homebuilding to continue to have a favorable effect on cement well into 1984. Increases in other markets, notably highway and light commercial construction, are just beginning to boost concrete construction.

Outlook: 1984 and beyond

Construction activity should increase more in 1984 than it did in 1983. In addition to homebuilding,

Region	thousands of tons of portland cement					
	1983	1984	1985	1986	1987	1988
Eastern	11,900	12,900	13,500	13,500	12,700	11,700
Great Lakes-Midwestern	9,100	10,200	11,300	12,000	11,500	10,000
Southeastern	12,500	13,500	14,000	14,500	14,000	13,000
North Central	3,600	4,100	4,500	5,000	5,000	4,500
Rocky Mtn-Northwest	5,400	6,200	7,200	8,000	8,500	8,000
Pacific-Southwest	9,100	10,500	12,000	12,500	13,000	11,500
South Central	17,400	18,600	20,000	20,300	20,500	19,500
Total Portland Cement	69,000	76,000	82,500	85,800	85,200	78,200

the lagging private non-residential and public construction markets also should be expanding.

Beyond 1984, construction of all types, especially non-residential building, will benefit from moderate inflation and more favorable federal tax treatment. As a result, we expect construction will provide an increasing share of real GNP in the next 5 years.

The PCA forecast, published in October 1983, is quite conservative in this respect; the construction/GNP ratio is projected to peak at 8.1% in 1986. Given the recent favorable changes in the inflation rate and tax legislation, a higher ratio is possible. Additional gains in the ratio likely will come from non-residential and public construction rather than from homebuilding. Non-residential construction is more sensitive than other types of construction to after-tax rates of return on investment, and public construction is being encouraged by growing public awareness of the nation's deteriorating infrastructure.

General observations

We believe that, because the recent recession was unusually long and severe and the early recovery modest, the expansion will evolve more slowly but last longer than average.

The structure of the economy of the 1980s likely will differ radically from that of the 1970s. Inflation is expected to be much lower though interest rates probably will remain high by historical standards. One reason for this incongruity is the prospect of $200 billion federal deficits each year well into the economic expansion. Should Congress and the Administration solve the deficit problem, the overall economic outlook would improve dramatically. Interest rates would decline to the single-digit ranges common in the 1950s and 1960s. Interest-sensitive industries such as construction probably would boom.

However, the wiser course at this time, we believe, is to assume that government deficits will be a hindrance for the next several years. As a result, the economy and construction will grow at a moderate pace. The U.S. gross national product is forecast to grow no more than 5% annually after adjustment for inflation. However, inflation, as measured by the consumer price index, is projected to increase no more than 6% per year, and the unemployment rate should decline steadily to a low of 7%.

Summing up, increased activity is expected in 1984 followed by continued growth in most construction markets in 1985. At some point, housing starts are expected to peak at 1.85 million units, well below housing's pace in previous expansions. Some slowing is anticipated for 1986 followed by declines in 1987 and 1988.

Construction should prosper in 1984 with gains expected in virtually every market. Because 1984 also will be an election year, activity might be even better than average for this point in the business cycle.

READY MIXED CONCRETE: Production up in '83

Jon I. Mullarky
Vice President, Promotion
National Ready Mixed Concrete Association

The country's economy and, in particular, the construction portion of the economy have shown a strong recovery in 1983. This has improved the general business conditions for the ready mixed concrete industry. A nearly 60% increase in housing construction, along with a nearly 7% increase in spending for highway construction, helped push ready mixed concrete production up by about 8% over 1982. As expected, improvement has been regional with the South showing a stronger recovery than the North Central area of the country. Again in 1983, market promotion efforts have paid off for ready mixed concrete producers. Surveys of promotion results by NRMCA's regional committees in the Eastern and South Central regions turned up nearly 2 million cu. yd. of concrete, promoted by producers, for streets and parking lots. These figures, coupled with individual success stories from other parts of the country show that market promotion efforts pay off!

In the past, our estimates of ready mixed concrete production have been based exclusively on cement shipment data collected by the Bureau of Mines. As the use of fly ash and other additives became more widespread, the estimates have tended to understate actual production. This year, we are making a slight modification to our estimating procedures in an effort to more accurately reflect the industry's production. In 1983, the ready mixed concrete industry produced in the neighborhood of 195 million cu. yd. valued at $8.5 billion.

Assuming that the general economic recovery continues in 1984, housing construction should increase as will highway construction. There are already indications that the construction recovery will reach the industrial and commercial building market in '84. The outlook for election year '84 is continued improvement. By year's end ready mixed concrete industry production should reach 214 million cu. yd.—up 10% from 1983.

CONCRETE BLOCK: "a welcome relief"

Paul Lenchuk,
President
National Concrete
Masonry Association

Construction has served as the government pawn in efforts to dampen inflation or increase employment. This was revealed in the 1970s, when inflation first became a problem, and again in the early 1980s. Understanding this gives some clues to what will happen to construction in 1984.

Since it is a Presidential election year, and since the Republicans control the White House and Senate, they have the ability to keep inflation under control and increase employment. There's no doubt every effort will be made to do both, and that means good news for the construction industry. It is unlikely interest rates will be allowed to climb, which means homebuilding will increase in 1984. With interest rates moderated, all construction will be benefited across the board. NCMA looks for a concrete block year as good as 1978. It will not be the best of years—that happened in 1973. But it will be far better than 1980-1983. We think that the number of concrete block equivalents sold will climb above the 3 billion mark for the first time since 1980. We estimate about 3.3 billion units.

Most of the increase will come in the shelter market—single and multi-family homes. A smaller increase will come in the commercial-industrial market. There probably will be a net loss in the public sector market—structures dependent upon some form of government money or incentive.

The concrete block paver market is the rising star in the block industry. This product was introduced by NCMA to the U.S. market in 1972, and it has taken a long time to catch the imagination of specifiers and the public. But it has caught on and will grow in all areas where a high class pavement is desired.

There are two additional markets where concrete block will be sold in increasing numbers—those that serve the retirement community and those where sports and leisure activities are developed. Exterior and interior block—colored and gray—will benefit from this expansion.

All in all, 1984, because it is an election year, and because the economy will be under control of the party in power, will be a very good one for construction and therefore for concrete block. It won't be as good as the best, but it will be a very welcome relief from the past 4 years.

PRESTRESSED CONCRETE: research underway

Fromy Rosenberg
Executive Director
Prestressed Concrete Institute

The Prestressed Concrete Institute has embarked on a major research and development program; a large segment of the membership has pledged a total of $736,395 over 3 years to finance eight major projects. By the end of 1983, six contracts will have been awarded to research organizations with two remaining projects to be awarded in 1984. To underscore the importance of R&D, a committee already is assembling recommendations on other projects so that the program becomes an ongoing PCI activity.

PCI is moving forward in many other areas. At the January 1983 meeting, the Board of Directors approved a budget of more than $2 million with a great deal of emphasis on marketing. Some of the major activities and programs of the Institute in 1983 included:

A national print media advertising program places advertisements in major publications such as *National Real Estate Investor, Progressive Architecture, Architectural Record, Engineering News Record, Parking and Construction Specifier.* Together with *Progressive Architecture* magazine, PCI has held Focus Group meetings in Chicago, Atlanta, San Francisco, Denver, Minneapolis, New York, Detroit, and Washington, D.C. These meetings brought together local architects and PCI members for discussions on our industry's performance and opportunities.

PCI has broadened its educational activities to include all users of precast and prestressed concrete products. To this end we exhibited at The World of Concrete, National Bridge Conference, Institutional and Municipal Parking Congress, and the convention of the American Society of Civil Engineers.

An Education Committee was established in 1983; its mission—"To plan and coordinate an ongoing Institute educational program that will insure the development of appropriate courses and programs within the academic community, and advance the design and use of precast and prestressed concrete by the promotion of education and public awareness within the construction community." The program has been de-

fined and implementation is expected to commence early in 1984.

Mindful of the importance of quality control, more and more plants are joining in the PCI Plant Certification program. As of the writing of this article, 102 plants are enrolled in the program. An ad hoc committee developed recommendations on how to strengthen the program and how to increase participation.

PCI has been very active in developing technical information relative to the expanding use of glass fiber reinforced concrete. An advanced GFRC Panel Production Workshop was held in San Francisco in October. A 3-year advertising program, to be funded by voluntary assessments from GFRC producers, will get underway in early 1984.

A high priority in PCI is publication of the Industry Handbook. When completed, this handbook will be the authority for the design of architectural precast concrete and precast prestressed concrete.

The Justice Facilities Committee is developing a state-of-the-art report on the use of precast prestressed concrete products in justice facilities. The prison market is estimated at about $4 billion. There are strong indications that precast prestressed concrete is a favored material for this growing construction market.

The Institute continues to support eligible marketing programs. To date, five associations, namely Georgia/Carolinas, New England, Texas, Colorado, and Florida, benefit from this program.

Our industry is moving ahead with a high degree of confidence in maintaining its position in existing markets as well as capturing new ones.

PRECAST CONCRETE: better bottom line

Robert W. Walton
Executive Vice President
National Precast
Concrete Association

Without question, the concrete industry is swept along with economic trends that prevail throughout the spectrum of business activity. Reports to the NPCA office indicate that improvement has been evident throughout 1983. The constituency of the National Precast Concrete Association cuts across widely diverse product line interests; because of this diversity, it is difficult to "crystal-ball" a capsulized opinion of what we can expect in 1984. However, some trends are discernible.

The recovery of the homebuilding industry has sparked increased production and sales for those who offer products in this area, and the transportation products sector of NPCA membership will benefit by monies generated by the Transportation Assistance Act of 1982. The modular paving market appears to be moving along quite well, and 1984 promises to see more of the same. Demand for precast concrete utility structures has remained fairly strong despite recessionary pressures; we predict substantial upward movement in demand for such products. On the negative side, we have forces at work in the agricultural products area that do not augur well for 1984. The extremely severe 1983 summer weather conditions in the grain belt had a dampening effect on farm improvements. So, 1984 is a definite question mark.

We expect the recovery to vary (in scope) in the various regions of the country. The Northeast is doing well because of high-tech and service industries. The Middle West economy has revived sharply, and is being led out of the depths by automobiles—a major factor in this sector of the country. The Southeast would appear to be staging a slower comeback although tourism and housing construction are on the upswing. The Southwest has been hit by the energy situation, but we look for concrete products producers to do well in the Southwest in 1984. The Far West has remained fairly strong in the past year and will be leading the way in 1984.

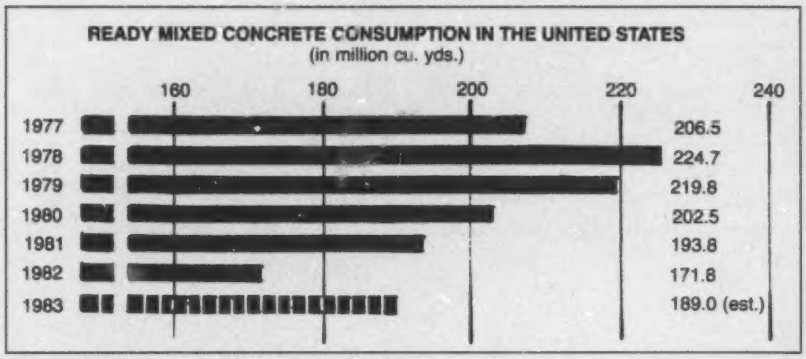
In conclusion, it would be appropriate to observe that a substantial amount of the 1984 business vigor will stem from steps taken during the past 2 years to improve efficiency. The precast industry, not unlike other industries, has been through a period of "belt tightening" and careful attention has been given to ways to improve productivity and reduce costs. 1984 profits should be higher for member precasters and all this relates to improved sales, decline in inflation, and to the current tax structure that allows corporations to depreciate their assets more realistically. Cash flow should improve; this will enable companies to do their financing internally. At the same time, those who need to borrow for operational needs will find interest rates more favorable. The bottom line should look much better in 1984.

Construction activity sparks ready-mix production upturn

By Sid Levine

The 5-year slide in ready mixed concrete output bottomed out in 1982. Percent production should rise in 1983 equivalent to the 10% increase in portland cement production projected by the Portland Cement Association. Demand is estimated at 189 million cu.yd. of ready mixed concrete in 1983, compared to 171.8 million cu.yd. in 1982 and the peak 224.7 million cu.yd. in 1978. The value of ready-mix in the United States in 1982 amounted to $7.9 billion ($3.31 billion in constant 1972 dollars).

Housing starts are projected to show a jump to 1.7 million units for 1983, about 58% higher than 1982's 1.072 million units. According to the *1984 Dodge/Sweet's Construction Outlook*, the number of starts may increase in 1984. Residential construction accounts for about 40% of the quantity of ship-



Ready mixed concrete consumption in the United States

Anticipated plant and equipment expenditures for 1984		Percent of respondents
New plants—cost ranges (dollars)	$ 50,000-100,000	0.8%
	100,001-200,000	1.6%
	200,001-300,000	3.3%
	300,001-500,000	0.4%
	500,001 + more	1.6%
Modernization/expansions—cost ranges (dollars)	$ 10,000- 49,000	8.1%
	50,000- 99,999	4.1%
	100,000-199,999	2.9%
	200,000-499,999	1.2%
	500,000 + more	0%
New equipment—cost ranges (dollars)	$ 50,000 or less	7.7%
	50,001-100,000	9.8%
	100,001-200,000	8.5%
	200,001-300,000	3.7%
	300,001-500,000	4.9%
	500,001 + more	1.6%

Anticipated plant and equipment expenditures for 1984

	1977	1978	1979	1980	1981	1982	1983*
New construction put-in-place in the U.S. (billion dollars)							
In current dollars	$173.83	205.56	230.41	230.75	238.20	229.55	—
In constant (1972) dollars	$111.1	116.7	115.1	103.4	98.7	—	—
In constant (1977) dollars	$173.4	182.0	179.0	161.1	156.2	144.8	150.5

New construction put-in-place in the United States

New housing starts (in million units)	2.002	2.036	1.760	1.313	1.100	1.072	1.7

New housing starts

Ready mixed concrete in the United States: Value of shipments (billion dollars)							
In current dollars	$ 5.68	6.90	7.99	7.97	8.24	7.90	—
In constant (1972) dollars	$ 3.70	4.04	4.09	3.62	3.52	3.31	—

Ready mixed concrete in the United States—value of shipments

**Estimate.* *Sources: U.S. Bureau of Mines; U.S. Dept. of Commerce; Portland Cement Association; Dodge/Sweet's Construction Outlook; Concrete magazine estimates.*

ments of ready mixed concrete in most years.

The value of new construction put-in-place in the United States, in constant 1977 dollars, amounted to $144.8 billion in 1982, compared to the record $182 billion in 1978; the projection for 1984 is $150.5 billion (in constant 1977 dollars). A detailed review and forecast for construction in the United States, prepared by Jim Kostka, *Concrete* magazine's director of research and marketing, appears in this issue.

Business changes

Concrete's annual survey of ready mixed concrete producers indicates that production increases for ready-mix for 1983 compared with 1982 ranged from 60% in the North Central states to 73% in the Southeast, for a U.S. average of 67%. Reported production decreases varied from 17% in the Southeast to 36% in the North Central region, for a national average of 25%. About 8% of the respondents to the survey reported no production change for 1983.

About 56% of the respondents anticipate business to increase in 1984, with average increases in the 10-14% range. Drops in 1984 output were forecast by 9% of the respondents, with decreases ranging from 10-17%. No change was expected by 27% of the respondents, while the "not sure" group ranged from 7-18%.

	North-east	South-east	North Central	West	South-west
Production changes: 1983 vs. 1982 (percent)					
Respondents with production increases	65%	73%	60%	68%	68%
Increase ranges:					
1-10%	7%	14%	28%	32%	22%
11-20	33	31	22	7	36
21-30	27	9	15	18	14
31-40	13	17	20	14	14
41+	20	29	15	29	14
Respondents with production decreases	22%	17%	36%	24%	23%
Decrease ranges:					
1-10%	40%	26%	22%	40%	60%
11-20	60	37	31	30	40
21-30	—	37	28	20	—
31-40	—	—	6	10	—
41+	—	—	13	—	—
No production change	13%	10%	4%	8%	9%

Production changes: 1983 vs. 1982

Anticipated business changes: 1984 vs. 1983 (percent)					
Respondents anticipating business increase	54%	69%	48%	52%	55%
Average increase anticipated	11%	12%	12%	14%	10%
Range	7-20%	2-35%	3-50%	2-50%	2-30%
Respondents anticipating business decrease	—	6%	10%	13%	5%
Average decrease anticipated	—	17%	10%	14%	15%
Range	—	10-25%	5-15%	7-30%	—
No change expected	38%	18%	24%	22%	32%
Not sure	8%	7%	18%	13%	8%

Anticipated business changes: 1984 vs. 1983

Price and wage cost changes: 1983 vs. 1982 (percent)					
Price changes:					
Respondents indicating price increases:	21%	41%	37%	35%	18%
Average increase	6%	11%	5%	7%	6%
Range	3-10%	1-8%	2-15%	2-20%	3-8%
Hourly wage changes					
Respondents indicating wage increases	79%	82%	59%	59%	96%
Average increase	6%	6%	6%	8%	7%
Range	5-10%	4-15%	1-12%	5-15%	2-12%
Maintenance cost changes:					
Respondents indicating increases:	75%	77%	69%	87%	82%
Average increase	11%	9%	12%	11%	9%
Range	3-50%	3-33%	2-50%	5-33%	5-20%
Raw materials cost changes					
Respondents indicating cost increases:	63%	71%	56%	59%	55%
Average increase	8%	7%	6%	8%	6%
Range	3-40%	2-15%	3-20%	1-15%	1-15%
Fuel/Energy cost changes					
Respondents indicating cost increases:	38%	47%	49%	54%	64%
Average increase	5%	6%	10%	10%	10%
Range	1-20%	1-16%	2-50%	2-40%	3-25%
Sales dollar allotment for advertising/ marketing/promotion in 1983 (percent):					
Respondents alloting—					
Less than 1%	33%	33%	42%	41%	32%
1%	38	26	25	22	18
2%	8	18	17	15	23
More than 2%	21	23	16	22	27

Cost changes (price/wage/maintenance/raw materials/fuel & energy)

Price and cost changes: 1983 vs. 1982

Respondents reporting price increases ranged from 18% in the Southwest to 41% in the Southeast, with average increases ranging from 5% to 11% in the different regions. Hourly wages were increased in 1983 by 75% of the respondents with an average increase of 7% nationally. Price and wage changes for the several U.S. regions are given in the accompanying tables.

Increased maintenance costs were reported by 78% of the survey respondents, for an average national increase of 10%. The most troublesome maintenance problems for the producers were attributed to trucks and mixers. Tires, transmissions, engines, drive trains, drums, hydraulic systems, and suspensions all contributed to maintenance needs, according to the survey.

Raw material costs for an average of 61% of the respondents rose about 7%. Fuel and energy accounted for an average 8% for 50% of the respondents. Average allotments from the sales dollar for advertising/marketing, and promotion were in the following ranges: less than 1%, 32-42%; 1%, 18-38%; 2%, 8-23%; more than 2%, 16-27%.

Anticipated 1984 expenditures

New plant planning for 1984 was projected by 7.7% of the respondents. About 2% estimated the new plant costs would amount to more than $300,000. Modernization and expansion projects have been planned by 16.3% of the respondents. About 36% of the

respondents indicated they expected to buy new equipment in 1984.

Business influences

Here are some of the responses to the survey query: "What factors do you expect will have the greatest effect on business in your area?"

"Unreasonable demands by unions."

"High labor rates."

"Too many concrete companies for the amount of work available."

"Undercutting of prices by competitors."

"About 50% of our business is on the farm for buildings and livestock feeding operations. Our business goes down when farm prices are low."

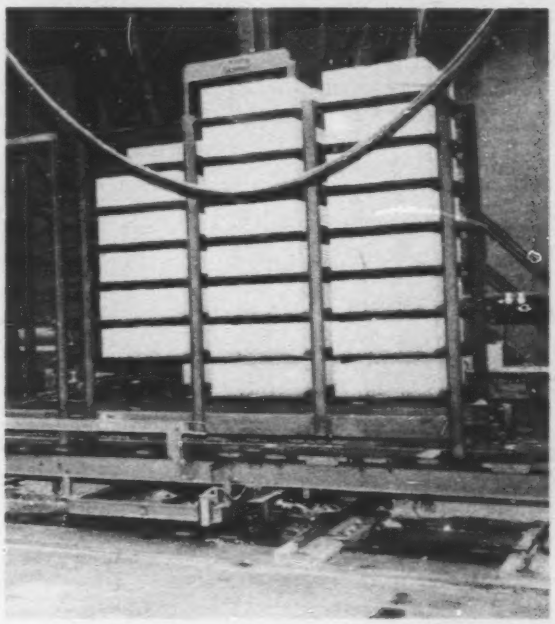
"See-sawing interest rates."

"Tourist dollars affect construction activity in our tourist area."

"Energy development funds will dictate our construction activity in Wyoming."

"Ability of our community to lure new industry to our area." ●

Masonry production heads upward in '83



Turnaround sparks optimism for '84

By Patricia Murphy

For the first time in 3 years, concrete masonry producers, responding to *Concrete's* annual survey of the industry, reported production volumes that represent heartening increases over their levels of the previous year. Nationwide, 1983 volume, as reported in the number of 8-in. equivalents produced, rose nearly 18% compared to 1982 totals.

Regionally, all areas of the country enjoyed increased production ranging from 11.6% in the West/Southwest to nearly 25% in the Southeast; the states of the Northeast and the North Central regions mirrored each other with increases over 1982 of 16.9% and 16.8% respectively.

About 78% of those answering the survey produce both lightweight and standard weight units (the remaining 22% produce either all lightweight or all standard weight). Slightly more than half (52%) of those who offer a product mix did not change their ratios of lightweight to standard weight; close to 30% increased the number of lightweight units during 1983; the remaining 18% decreased the ratio of lightweight to standard weight.

For most of the respondents, prices remained at 1982 levels. About 60% did not increase prices; the remaining 40% raised prices a weighted average of 5.4%. Compared to 1982, these figures show a few more producers raising prices but asking less of an increase. (In 1982, 33% raised prices an average of 7.2%).

Costs

The overall cost of doing business—wages, raw materials, fuel/energy, transportation, and maintenance—rose less steeply for 1983 respondents than for those who answered our survey in 1982. The 1983 weighted average is 8.7%; last year that average was 10.7%.

The accompanying table shows that, compared to 1982, a higher percentage of respondents experienced cost increases that were, in three of the five categories, less than the increases experienced by last year's respondents. In both years, for anywhere from 20% to more than 25% of those answering the survey, costs either dropped or did not increase from levels of the previous year. A regional breakdown appears in an accompanying table.

Summary 1983 Concrete Masonry Survey

Review of 1983

Production (as reported in 8-in. equivalents)
- 1983 vs. 1982
  - Up (% of replies) 68.2%
  - Down (% of replies) 18.2%
  - Same as '82 (% of replies) 13.4%
- Overall volume change +17.9%

Lightweight vs. standard weight units
- % reporting a mix 77.7%
- Of that number, % increasing l.w.'s share of mix 29.5%
- % decreasing l.w.'s share of mix 18.3%
- same ratio—l.w. to st.w. 52.0%

Prices
- % raising prices in '83 40.0%
- % increase (weighted average) 5.4%

Costs
- Wages
  - % paying increase in '83 63.4%
  - % increase (weighted average) 6.2%
- Raw materials
  - % paying an increase 80.0%
  - % increase (weighted average) 6.9%
- Fuel/Energy
  - % paying an increase 75.4%
  - % increase (weighted average) 11.6%
- Transportation
  - % paying an increase 76.4%
  - % increase (weighted average) 8.9%
- Maintenance
  - % paying an increase 81.1%
  - % increase 9.9%
- Promotion
  - spent 1% or more of sales $ 58.7%
  - average (weighted) spent 2.3%

Outlook for 1984

Business expectations
- % expecting increase 65.8%
- % increase expected (weighted) 13.08%
- % expecting decline 2.0%
- % decline expected (weighted) 9.0%
- % expecting no change from '83 19.0%
- % unsure 14.0%

Plans for 1984
- % planning expenditures 50.7%
- Of that number:
  - % planning new plants 6.2%
  - % planning modernization 31.2%
  - % planning equipment purchases 62.5%

(% of responses rounded off; will not total 100%)

Outlook for 1984

"Cautious optimism" best describes the feelings of 1983's respondents as expressed in comments added to survey answers. "What we need," said one producer "is steady growth, not peaks one year and valleys the next. Lower interest rates, a low rate of inflation, a stable economy—in that kind of climate we ought to make it, and the prospects look good for next year."

Another factor—promotion—was emphasized in comments from a producer in the Southeast. "We have to get block back into walls which, in recent years, have gone to steel studs and metal buildings. We need to promote our product to any market we can get into." Lack of promotion in the industry was highlighted in survey responses: only about 59% earmark more than 1% of each sales dollar for advertising/promotion, and the average spent is 2.3%.

Asked about the outlook for 1984, nearly 66% answered with expectations of an increase over 1983; they expect that increase to be around 13%. This is a decided increase over 1982 in the number of optimists when slightly more than 40% predicted an improved 1983. The number of pessimists dropped dramatically—in 1982, 12.2% felt 1983 would be a poorer year in terms of business; only 2% feel the same way about 1984. About 32% either are not sure about 1984 or believe the year will be the same as 1983.

Slightly more than half the respondents are planning to invest in either new plants, modernization of present facilities, or in new equipment. Of that number, 62.5% are contemplating expenditures for equipment, 31.2% expect to modernize, and 6.2% have new plants in mind. Regionally, respondents in the Southeast are the most ready to invest in plant and equipment but, as always, plans are contingent on the stability of the economy in 1984. ●

	1983		1982	
	% reporting increase	av. increase	% reporting increase	av. increase
wages	63.4%	6.2%	62.0%	7.6%
materials	80.8%	6.2%	74.1%	7.3%
f/e	75.4%	11.6%	73.5%	12.2%
trans.	76.4%	8.9%	68.3%	7.8%
maint.	81.1%	9.9%	74.1%	9.6%

1983 Costs by Region

Region	% reporting increase	range	average increase
Wages			
Northeast	77.4%	3-12%	6%
Southeast	58%	.05-20%	6.6%
N. Central	51%	3.5-15%	6.6%
West/SW	82.3%	3-10%	5.8%
Raw Materials			
Northeast	86.6%	2-25%	9.6%
Southeast	89.6%	2-40%	11.9%
N. Central	66.6%	1-25%	10.2%
West/SW	87.5%	3-15%	6.4%
Fuel/Energy			
Northeast	75.8%	1-40%	9.9%
Southeast	76.6%	1-50%	11.8%
N. Central	72.7%	2-25%	9.7%
West/SW	80.0%	5-63%	19.7%
Transportation			
Northeast	88.4%	1-40%	9.7%
Southeast	69.2%	3-25%	9.6%
N. Central	70.0%	2-12%	6.2%
West/SW	85.7%	3-63%	12.5%
Maintenance			
Northeast	90.0%	2-25%	9.6%
Southeast	89.6%	2-40%	11.9%
N. Central	66.6%	1-25%	10.2%
West/SW	87.5%	3-15%	6.4%

Precast concrete

1983 production is up, 1984 expected to show further climb

By Rick Tiller

Seeming to continue an up-and-down pattern of production maintained since 1979, the precast concrete producers responding to our 1983 survey indicated an average 11.5% increase after a slight drop in business in 1982.

The largest regional jump in production was recorded in the western states where average output climbed by more than 18%. With no regional declines in 1983, the area with the smallest rate of increase was the southeast and gulf area with an average increase of less than 3%. It was the Sun Belt's 32% production drop that led the precast industry's 1982 decline. The northeastern states—the only region to show an output increase in 1982—showed a 1983 production gain of 14%, while north central producers gained more than 13% in average output increases.

Optimism was high among the responding producers, 66% of whom expect average gains of more than 23% in 1984. Only 1% expected a production drop for the coming year. Almost 27% of the replies indicated more of the same, while 6% of the respondents registered uncertainty.

The optimism was reflected in the reported plans for facility improvement in 1984 with 66% of the responses indicating plans for upgrading. Some 42% expect to buy new equipment, while 23% are looking at expanding their plants. About 9% want to build altogether new precasting facilities, and 5% are ready to spend more than $500,000 on their projects.

Prices were raised by only about 39% of the answering precasters by a reported average of 6%. Comparatively, prices were raised by more than half the precasters in 1982, by an average of more than 7%.

More than 70% of those surveyed raised wages by an average of more than 6.6%. More than half the responses indicated energy cost increases of 10%, and the cost of raw materials was reported to have risen an average of 6.2% by 62% of the replies. About 64% of the respondents said maintenance costs had increased by nearly 10% in 1983.

Maintenance problems were cited in 78% of the survey responses, with trucks mentioned by 53% of the respondents. Cranes, forklifts, and other material handling equipment were cited in 18% of the replies, and 9% said forms and molds were their biggest maintenance problems. The rest of the responses cited such miscellaneous items as elevator buckets, steam boilers, electrical systems, hydraulics, and mixer parts.

Of the business factors reported, 55% cited the general economy or the state of interest rates. Another 20% cited local commercial development, including Expo '84, local oil and auto industries, residential developments, and planned recreational areas.

Other area factors including miscellany such as the addition of a state fuel tax to finance bridge and highway repair, one producer who was hit hard by cuts in EPA funding of local projects, and an Indiana producer who is hoping that the "AT&T divestiture of the Bell Companies may lead to a major increase in the number of manholes," giving his utility manhole market a shot in the arm. ●

Summary Concrete Magazine's Precast Concrete Survey

Review of 1983	
Industry output 1983 vs. 1982	+11.5%
Pricing of products	
prices raised (% replies)	39%
% raised	6%
Costs	
• Wages	
increased (% replies)	71%
% of increase	6.6%
• Maintenance	
increased (% replies)	64%
% of increase	9.7%
• Raw materials	
increased (% replies)	62%
% of increase	6.2%
• Energy	
increased (% replies)	52%
% of increase	10%
Outlook for 1984	
Production gain (% replies)	66%
% of gain	23.6%
Production drop (% of replies)	1%
% of drop	10%
No change	27%
Unsure	6%
Plans for 1984	
New plants	9%
New equipment	42%
Plant expansions	23%

Prestressed concrete

Production down in '83, but hopes are high for this year

By Rick Tiller

The prestressed concrete industry's production rate, according to respondents to *Concrete's* year end survey, slacked off 2% during 1983. The drop was led by the western and southwestern states which showed a combined decrease in business of more than 10%.

The only region to indicate any business increase, in fact, was the north central region, and that was to the extent of 5%. States along the Eastern and Gulf coasts averaged 3% production decreases, with the northeastern states' production down by 6%. While showing a drop, the northeastern area figures do indicate some improvement in that region which has suffered annual production declines in recent years at rates of 20-35%.

The reason for slackness in the Sunbelt and the western states seems to be centered on the completion of a number of federal- and state-funded highway and road construction projects. "Our company relies on the Texas highway system for 90% of all production," wrote one producer.

"The improvement of the present system," he added, "is greatly needed and will be done. However, the volume of precast/prestressed will never be of the same volume as that of the period from 1960 to 1979 . . . 94% of the major highway system is built and the rehab work would never come close to meeting the existing production capacity of the many . . . plants located throughout the state."

The same southwestern producer also predicted another 3 to 5 years of prestressed production and price decreases, and "only the strongest will survive."

If there was a slowing in the production, there was a jump in industry-wide optimism for 1984. Expectations of business increases averaging 20% were reported by 62% of the responding producers. Decreases in production averaging 8% are expected by only 7% of those participating in the survey. The status quo is anticipated by 22%, and 9% of the producers expressed uncertainty of developments over the coming months.

The optimism for 1984 was reflected in plans made for the operations, with 69% reporting planned improvements, and nearly one-third of that group ready to spend more than $500,000 on plant modifications. Nearly half (47%) will be purchasing new equipment, while 42% plan to expand their plants. Seven percent will be paying to develop altogether new plants.

Highway work comprised 13% of the reported business factors, while the general state of the economy—interest rates most specifically—was cited by more than 70% of those reporting. There was almost no reference at all to whether each of the producers was blaming or crediting the "general economy" for their briskness of business. Other factors included new industry and residential development, commercial markets, and local bidding practices. An Indiana prestresser complained that producers in his area were more interested in outbidding and undercutting each other's prices than they were in promoting prestressed concrete.

Maintenance costs were reported to have risen by more than 8%, according to 76% of the respondents. Two-thirds indicated that the cost of raw materials had risen an average of 4%. Fuel and energy costs climbed at an average rate of 8% in 1983, according to 76% of the producers. The reported rates of cost increases ran at about half what was reported in January 1983.

More than 70% of the responses cited specific maintenance problems, 48% of which was comprised of material handling equipment, including forklifts, cranes, etc. Trucks accounted for 10% of the responses, and electrical and diesel equipment, core machines, hydraulic pumps, plumbing, bearings and drives, parts, labor, rolling stock, and other items filled in the miscellaneous column.

More than three-fourths of the responses indicated wage increases averaging 6.2%, while 29% reported raising prices an average of 5%.

Seven percent of the prestressers reported dropping prices because of the local bidding conditions, one by as much as 10%. ●

Summary
Concrete Magazine's Prestressed Concrete Survey

Review of 1983	
Industry output 1983 vs. 1982	−2%
Pricing of products	
prices raised (% replies)	29%
% of raise	5%
no change	71%
Costs	
• Wages	
increased (% replies)	76%
% of increase	6.2%
• Maintenance	
increased (% replies)	76%
% of increase	8.4%
• Raw materials	
increased (% replies)	67%
% of increase	4.4%
• Energy	
increased (% replies)	76%
% of increase	8%
Outlook for 1984	
Production gain (% replies)	62%
% of gain	20%
Production drop (% replies)	7%
% of drop	8%
No change	22%
Unsure	9%
Plans for 1984	
New plants (% replies)	7%
Plant expansion (% replies)	42%
New equipment (% replies)	47%

Concrete pipe

1983 sees stop in 3-year decline, 1984 growth expected

Summary
Concrete Magazine's
Concrete Pipe Survey

Review of 1983	
Industry Output 1982 vs. 1983	+22%
Pricing of products	
prices raised (% replies)	31%
% of increase	7.5%
Costs	
• Wages	
increased (% replies)	82%
% of increase	6.6%
• Maintenance	
increased (% replies)	76%
% of increase	10.7%
• Raw materials	
increased (% replies)	69%
% of increase	7.8%
• Energy	
increased (% replies)	62%
% of increase	12%
Outlook for 1984	
Production gain (% replies)	64%
% of gain	11.3%
Production drop (% replies)	7%
% of drop	15%
No change	20%
Unsure	9%
Plans for 1984	
New plants (% replies)	—
New equipment	44%
Plant expansion	22%

By Rick Tiller

As if to break 3 years of production decreases with a vengeance, the concrete pipe industry reported a healthy production increase in 1983, with the majority of the producers responding to *Concrete's* year-end survey expecting still more substantial increases for 1984.

The 22% production increase was led by the western and southwestern areas, with a combined production increase average of 29%. The north central states also turned around a regional long-term decline with a 19% increase. The northeastern and southeastern states showed the least change of all, but respondents from both areas showed average increases of more than 5%.

The producers also see a good year coming up, with 64% expecting average increases of more than 11%. The north central area and the western states expect increases averaging 17% and 15%, respectively. Seven percent expect decreases averaging 15%, while 20% of the respondents expect to maintain the status quo. Uncertainty was expressed by only 9%.

Some 53% plan to effect changes in their operations. About 44% will purchase new equipment, and 22% will expand their plant facilities.

More than one-third of the respondents cited area factors affecting business. About 56% of that group named the general economy as the governing factor, and more than half of them specified interest rates. More than 12% praised EPA funding of local projects as being boons to the businesses, all of which came from the north central area. State and federal money was mentioned by another 12%, while another 12% claimed local political problems, one involving metal pipemakers.

Only 31% of the responses indicated price increases (averaging 7.5%), while 82% of these surveyed cited increased wages of 7.5%.

More than three-fourths of the respondents reported maintenance cost increases averaging almost 11%, while raw material costs increased on the order of 7.8%, according to 69% of those surveyed. Energy costs increased an average of 12% for 62% of the respondents.

Maintenance factors were cited as troublesome by 73% of the survey responses, of which 24% complained of trucks, 21% worried over forklifts, electrical systems were problems for 15%, and 21% incurred the most cost from replacement parts. Miscellaneous maintenance factors included forms, abrasion, corrosion, and neglect. ●